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SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 20 88 80 25

Classification of the application (IPC):
G06N 3/063*, *G06N 3/04*, *G06N 3/044*, *G06N 3/08*, *H03M 13/00*, *H03M 13/11*, *H03M 13/13*, *H03M 13/15

Technical fields searched (IPC):
G06N, H03M

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
Y	**KIM MINHOE ET AL**: "Toward the Realization of Encoder and Decoder Using Deep Neural Networks" *IEEE COMMUNICATIONS MAGAZINE, IEEE SERVICE CENTER, PISCATAWAY, US*, 13 May 2019 (2019-05-13), vol. 57, no. 5, DOI: 10.1109/MCOM.2019.1900093, ISSN: 0163-6804, pages 57-63, XP011724474 * figures 1-3 * * page 57 - page 60 *	1-14
Y	**Rohollah Soltani ET AL**: "Higher Order Recurrent Neural Networks", 30 April 2016 (2016-04-30) URL: https://arxiv.org/pdf/1605.00064.pdf [retrieved on 31 May 2023 (2023-05-31)] XP055688279 * figures 1,3 * * Eqs. (1), (2), (3) * * page 1 - page 4 *	1-14
A	**CHANG ANDRE XIAN MING ET AL**: "Hardware accelerators for recurrent neural networks on FPGA" *2017 IEEE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS (ISCAS), IEEE*, 28 May 2017 (2017-05-28), DOI: 10.1109/ISCAS.2017.8050816, pages 1-4, XP033156440 * the whole document *	1-14
A	**Sandoval Ruiz Cecilia**: "FPGA prototyping of Neuro-Adaptive Decoder" *CIMMACS '10: Proc. 9th WSEAS International Conference on Computational Intelligence, Man-Machine Systems and Cybernetics* Merida, Venezuela 14 December 2010 (2010-12-14), pages 99-104 URL: https://dl.acm.org/doi/abs/10.5555/1948759.1948774 [retrieved on 31 May 2023 (2023-05-31)] XP093050868 * the whole document *	1-14

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search	Date of completion of the search	Examiner
Munich	14 June 2023	Wu, Zifeng

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A	**ELIYA NACHMANI ET AL**: "RNN Decoding of Linear Block Codes" *ARXIV.ORG, CORNELL UNIVERSITY LIBRARY, 201 OLIN LIBRARY CORNELL UNIVERSITY ITHACA, NY 14853*, 24 February 2017 (2017-02-24), XP080748455 * the whole document *	1-14
A	**PAYANI ALI ET AL**: "Decoding LDPC Codes on Binary Erasure Channels using Deep Recurrent Neural-Logic Layers" *2018 IEEE 10TH INTERNATIONAL SYMPOSIUM ON TURBO CODES & ITERATIVE INFORMATION PROCESSING (ISTC), IEEE*, 03 December 2018 (2018-12-03), DOI: 10.1109/ISTC.2018.8625326, pages 1-5, XP033506510 * the whole document *	1-14
A	**CHIEH-FANG TENG ET AL**: "Low-complexity Recurrent Neural Network-based Polar Decoder with Weight Quantization Mechanism" *ARXIV.ORG, CORNELL UNIVERSITY LIBRARY, 201 OLIN LIBRARY CORNELL UNIVERSITY ITHACA, NY 14853*, 29 October 2018 (2018-10-29), XP081417914 * the whole document *	1-14

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

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Munich	14 June 2023	Wu, Zifeng

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